

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P854074

Luminaire Tested: SQ2-PH1-150U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854074
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-PH1-150U-125D-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

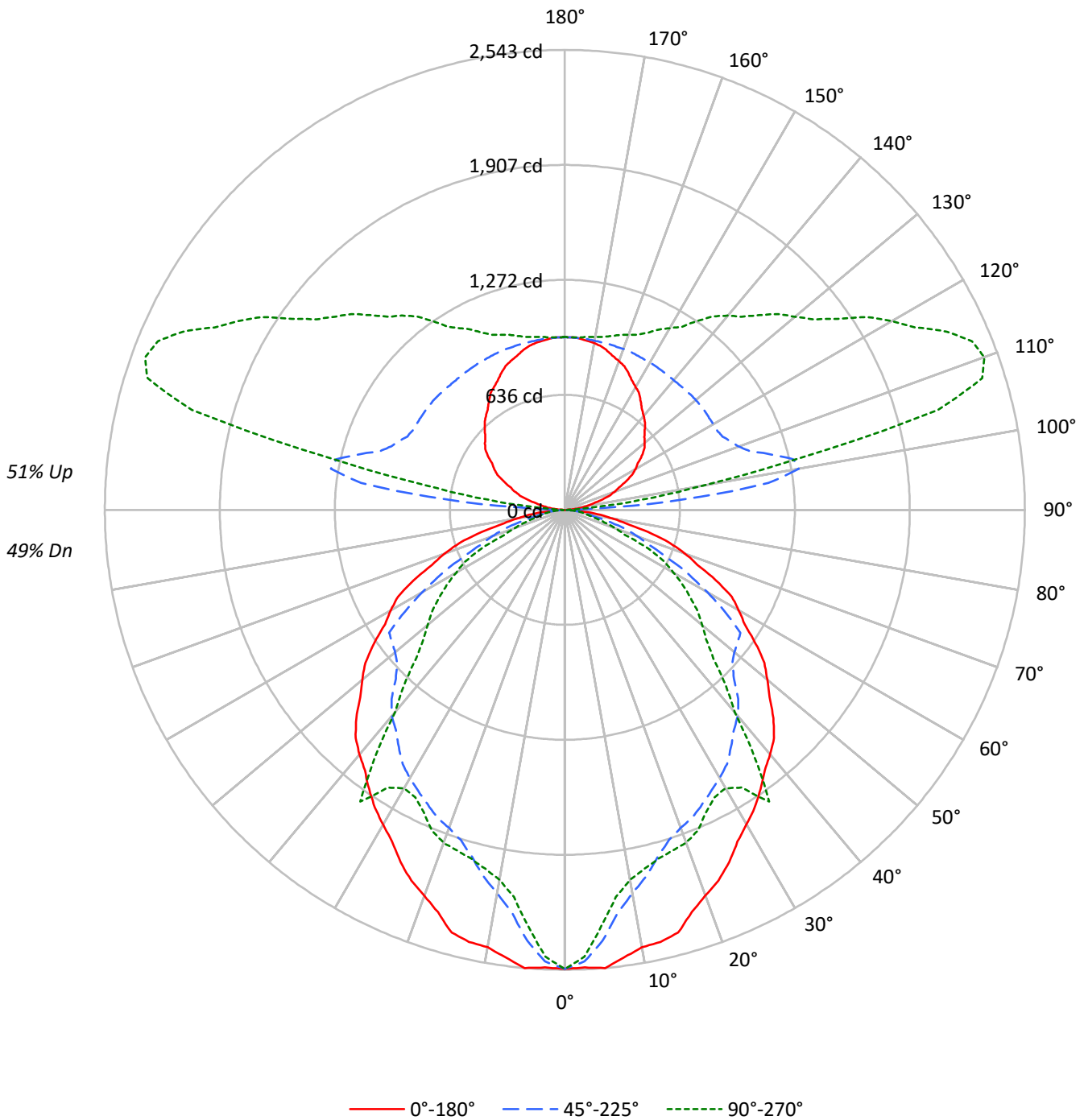
Lumens per Lamp: N/A
Luminaire Lumens: 11510.1 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 105.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P854074

CATALOG NUMBER: SQ2-PH1-150U-125D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854074

CATALOG NUMBER: SQ2-PH1-150U-125D-935-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49				
1	98	94	90	86	90	86	83	80	73	70	68	60	59	57	49	48	47	42				
2	89	82	76	71	82	76	70	66	64	60	57	53	50	48	43	41	40	35				
3	81	72	65	59	75	67	60	55	57	52	48	47	44	41	38	36	34	30				
4	74	64	56	50	68	59	52	47	50	45	41	42	38	35	34	32	29	26				
5	68	57	49	43	63	53	46	40	45	39	35	38	34	30	31	28	26	22				
6	63	51	43	37	58	47	40	35	41	35	31	34	30	27	28	25	23	20				
7	58	46	38	33	54	43	36	31	37	31	27	31	27	24	26	22	20	17				
8	54	42	34	29	50	39	32	27	33	28	24	28	24	21	24	20	18	16				
9	50	38	31	26	46	36	29	24	31	25	22	26	22	19	22	19	16	14				
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	15	13				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	40981	40981	40981
5°	41217	38751	37459
10°	40268	35279	34051
15°	40450	33183	33386
20°	39007	32160	33653
25°	38291	32010	32870
30°	37461	31923	33139
35°	37178	31560	38843
40°	37209	31356	30795
45°	37223	30163	26524
50°	36701	30755	24872
55°	36234	33380	23862
60°	35873	29243	22381
65°	35247	23713	19469
70°	33291	20181	13907
75°	29682	15215	10549
80°	24249	9884	9884
85°	15209	8948	6706

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 37223 cd/sqm



TEST NUMBER: P854074

CATALOG NUMBER: SQ2-PH1-150U-125D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.3	1.9
10°-20°	587.5	5.1
20°-30°	861.4	7.5
30°-40°	1043.2	9.1
40°-50°	1025.8	8.9
50°-60°	893.0	7.8
60°-70°	620.8	5.4
70°-80°	294.4	2.6
80°-90°	65.9	0.6
90°-100°	363.9	3.2
100°-110°	1191.6	10.4
110°-120°	1178.0	10.2
120°-130°	963.0	8.4
130°-140°	785.9	6.8
140°-150°	611.6	5.3
150°-160°	440.4	3.8
160°-170°	269.4	2.3
170°-180°	91.0	0.8
0°-30°	1672.2	14.5
0°-40°	2715.4	23.6
0°-60°	4634.2	40.3
0°-90°	5615.3	48.8
90°-120°	2733.5	23.7
90°-150°	5093.9	44.3
90°-180°	5895.0	51.2
0°-180°	11510.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2538	2538	2538	2538	2538	
5°	2543	2541	2391	2316	2311	239
15°	2420	2155	1985	1971	1997	675
25°	2149	1828	1797	1852	1845	988
35°	1886	1525	1601	1739	1971	1181
45°	1630	1208	1321	1367	1162	1253
55°	1287	940	1186	855	848	1150
65°	923	646	621	510	510	907
75°	476	329	244	174	169	504
85°	82	54	48	39	36	110
90°	1	3	8	7	8	5
95°	51	148	662	236	153	58
105°	207	295	1183	2247	2135	218
115°	373	446	961	1986	2331	368
125°	519	579	947	1566	1839	462
135°	625	692	939	1351	1522	484
145°	731	785	937	1162	1273	458
155°	833	861	943	1039	1080	384
165°	910	918	947	984	994	256
175°	951	951	952	959	957	90
180°	955	955	955	955	955	



TEST NUMBER: P854074

CATALOG NUMBER: SQ2-PH1-150U-125D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2538.2	2538.2	2538.2	2538.2	2538.2
2.5°	2532.4	2558.9	2499.6	2476.3	2472.5
5°	2543.1	2540.7	2390.9	2315.9	2311.2
7.5°	2496.7	2423.5	2244.6	2161.9	2158.1
10°	2456.1	2345.1	2151.8	2076.9	2076.9
12.5°	2446.5	2271.2	2076.5	2021.2	2032.5
15°	2419.9	2155.4	1985.2	1971.3	1997.3
17.5°	2332.0	2047.2	1914.2	1945.8	1976.0
20°	2270.2	1989.1	1871.7	1930.3	1958.6
22.5°	2218.0	1933.2	1840.8	1904.9	1920.0
25°	2149.4	1828.3	1796.8	1852.2	1845.1
27.5°	2067.3	1732.0	1752.8	1786.8	1791.0
30°	2009.3	1674.0	1712.3	1746.8	1777.5
32.5°	1953.3	1606.6	1667.8	1749.6	1820.0
35°	1886.2	1524.9	1601.2	1739.3	1970.7
37.5°	1815.6	1428.4	1534.0	1650.2	1723.9
40°	1765.4	1359.2	1487.7	1631.1	1461.1
42.5°	1711.3	1305.1	1418.1	1603.3	1316.2
45°	1630.2	1207.5	1321.0	1367.1	1161.6
47.5°	1534.5	1131.7	1255.3	1140.0	1059.7
50°	1461.1	1080.9	1224.4	1042.1	990.2
52.5°	1389.6	1028.3	1203.2	961.4	926.4
55°	1287.2	940.1	1185.8	854.8	847.7
57.5°	1178.5	850.3	1048.6	762.0	774.3
60°	1110.9	792.1	905.6	707.3	693.1
62.5°	1039.4	735.8	772.3	637.7	623.6
65°	922.6	646.3	620.7	509.6	509.6
67.5°	794.1	553.2	502.8	417.0	360.3
70°	705.2	492.7	427.5	332.4	294.6
72.5°	610.5	428.2	350.2	272.4	228.9
75°	475.8	329.4	243.9	173.8	169.1
77.5°	343.9	237.2	164.2	129.0	129.4
80°	260.8	180.5	106.3	103.9	106.3
82.5°	183.5	124.0	79.2	82.6	83.1
85°	82.1	53.8	48.3	38.6	36.2
87.5°	17.6	16.1	11.2	11.0	11.2
90°	1.0	2.9	7.9	6.9	7.9
92.5°	16.7	60.8	186.9	60.8	48.7
95°	51.0	148.0	661.6	235.7	153.1
97.5°	92.7	195.2	1135.1	686.6	425.6
100°	121.7	219.6	1313.3	1172.8	777.4
102.5°	154.7	250.3	1293.7	1728.1	1339.6
105°	207.1	295.4	1182.8	2247.2	2134.9
107.5°	258.7	339.7	1074.6	2295.7	2419.1
110°	292.5	371.2	1022.8	2239.2	2468.6



TEST NUMBER: P854074

CATALOG NUMBER: SQ2-PH1-150U-125D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	324.7	401.1	991.4	2141.0	2434.8
115°	373.0	445.9	960.9	1985.7	2331.2
117.5°	419.9	488.0	949.4	1833.1	2183.9
120°	450.5	514.8	946.2	1744.1	2085.8
122.5°	478.0	540.8	946.2	1667.4	1984.5
125°	519.2	578.7	947.2	1565.9	1839.4
127.5°	554.2	614.8	946.0	1491.1	1729.1
130°	576.2	637.6	945.2	1445.8	1660.8
132.5°	595.8	658.8	942.9	1406.9	1601.9
135°	625.2	691.5	939.3	1350.6	1522.4
137.5°	656.3	721.9	937.2	1291.9	1447.2
140°	678.3	741.6	936.4	1254.8	1401.7
142.5°	700.2	759.7	936.4	1215.2	1348.3
145°	731.3	785.0	937.4	1161.7	1273.1
147.5°	763.8	808.6	938.8	1115.2	1199.3
150°	784.3	823.6	940.3	1088.2	1159.2
152.5°	804.7	839.4	941.1	1065.9	1124.7
155°	833.3	861.2	943.3	1039.4	1079.7
157.5°	859.1	879.2	945.4	1018.5	1047.7
160°	875.5	891.9	946.2	1006.6	1029.6
162.5°	889.7	902.9	946.2	997.0	1013.9
165°	909.9	918.5	947.2	983.8	994.3
167.5°	927.0	931.2	948.4	973.4	979.2
170°	936.4	938.3	949.2	967.9	969.8
172.5°	943.5	944.6	951.5	963.9	964.3
175°	951.1	951.1	952.1	958.9	957.0
177.5°	955.0	954.3	953.5	958.1	955.0
180°	955.0	955.0	955.0	955.0	955.0



TEST NUMBER: P854074

CATALOG NUMBER: SQ2-PH1-150U-125D-935-UNV-STD-W-4

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	20.12	20.96	21.08	21.94	23.23	18.79	19.63	19.76	20.61	21.90
	3H	22.14	22.89	23.12	23.89	25.20	19.82	20.58	20.80	21.57	22.88
	4H	22.87	23.58	23.86	24.58	25.90	20.03	20.75	21.03	21.74	23.06
	6H	23.35	24.01	24.36	25.01	26.34	20.18	20.83	21.18	21.83	23.17
	8H	23.48	24.10	24.49	25.12	26.45	20.21	20.83	21.22	21.85	23.18
	12H	23.52	24.12	24.54	25.13	26.48	20.21	20.80	21.22	21.81	23.16
4H	2H	20.49	21.20	21.49	22.20	23.52	19.43	20.14	20.43	21.14	22.46
	3H	22.59	23.19	23.60	24.21	25.54	20.61	21.20	21.61	22.22	23.56
	4H	23.41	23.95	24.42	24.97	26.32	20.88	21.42	21.90	22.44	23.80
	6H	23.99	24.46	25.02	25.50	26.85	21.09	21.55	22.12	22.59	23.95
	8H	24.16	24.60	25.19	25.63	27.00	21.14	21.58	22.17	22.61	23.98
	12H	24.23	24.62	25.28	25.67	27.04	21.15	21.54	22.20	22.59	23.96
8H	4H	23.42	23.86	24.45	24.89	26.26	21.09	21.53	22.12	22.56	23.93
	6H	24.07	24.43	25.13	25.51	26.87	21.37	21.73	22.42	22.80	24.17
	8H	24.30	24.62	25.36	25.68	27.06	21.47	21.78	22.53	22.84	24.23
	12H	24.41	24.69	25.48	25.74	27.17	21.51	21.79	22.58	22.84	24.27
12H	4H	23.37	23.77	24.42	24.82	26.19	21.09	21.48	22.14	22.53	23.90
	6H	24.05	24.36	25.11	25.42	26.81	21.40	21.71	22.46	22.77	24.16
	8H	24.28	24.56	25.34	25.61	27.04	21.51	21.79	22.58	22.84	24.27